

**REMARKS**

The present application relates to a polyether ester elastic fiber.

Claims 1 - 20 were rejected in the Office Action of October 8, 2008. On page 2 of the Office Action, claims 2, 4, 7, 11 - 13, and 18 - 20 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. On page 2 of the Office Action, claims 11 - 13 and 18 - 20 were rejected under 35 U.S.C. § 101, as not being process claims. On page 3 of the Office Action, claims 1 - 8 and 14 - 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over EP 0 821 086 (EP '086 publication). On page 4 of the Office Action, claims 9 - 10 and 16 - 17 were rejected under 35 U.S.C. § 103(a) as unpatentable over EP '086 publication and Azuse et al (U.S. Patent Application Publication 2003/0024052) ("Azuse").

Applicant thanks the Examiner for clarifying that the subject matter of the rejection under 35 U.S.C. § 112 was the second set of parenthetical expressions around the text of claims 2 and 4, rather than the first set of parenthetical expressions around the formula of claim 2. Also, Applicant appreciates the Examiner's acknowledgement that no reason was set forth for the rejection of claim 7 under 35 U.S.C. § 112, second paragraph; Applicant has amended claim 7 herein to move the period (.) to follow the mathematical expression, to better assure that claim 7 is considered to be in proper form.

Applicant amends claim 2 and 4 to delete the parenthetical expression around the text in each claim to clarify that the recitation therein is part of the claim. Claims 11 - 13 and 18 - 20 are cancelled.

**Response to the Rejections under 35 U.S.C. § 112**

Applicant respectfully submits that the above amendments to claims 2 and 4 obviate the rejections of these claims. Claims 11 - 13 and 18 - 20 are cancelled, which obviates the rejection of those claims. As noted above, it is Applicant's understanding that claim 7 is now clearly in full compliance with all requirements of 35 U.S.C. § 112, second paragraph.

**Response to the Rejection under 35 U.S.C. § 101**

Applicant respectfully submits that the above claim cancellation of claims 11 - 13 and 18 - 20 furthermore obviate the § 101 rejection of these claims.

**Response to the § 103 Rejection Based on Yamamura**

Applicant respectfully submits that EP '086 publication does not render the claims 1 - 8 and 14 - 15 obvious.

The presently claimed invention has the following features.

“A polyether ester elastic fiber comprising a polyether ester elastomer containing polybutylene terephthalate as a hard segment and polyoxyethylene glycol as a soft segment, characterized by having a coefficient of moisture absorption of not less than 5 % at 35°C and at a RH of 95 % and a coefficient of water absorption extension of not less than 10 %.” See present claim 1.

The polyether ester elastic fiber of the presently claimed invention has a good moisture-absorbing property, and is reversibly greatly expanded or contracted by the absorption or release of water to give excellent comfortableness, and thus the specific elastic fiber of the presently claimed invention is useful for producing fabric and clothing. See page 2, lines 20 - 27 of the specification.

In contrast, the EP '086 publication discloses a polyether ester elastic fiber, but the polybutylene terephthalate portion is only explained as an example of the hard segment and polyoxyethylene glycol is only explained as an example of the soft segment. Also, in Examples 1 - 14 of the EP '086 publication, the only polyether ester copolymers used for an elastic fiber are prepared by copolymerizing a terephthalic acid component, a tetramethylene glycol, and a poly(tetramethyleneoxide) glycol (Examples 1 - 13), or by copolymerizing a dimethyl terephthalate component, a tetramethylene glycol and a poly(tetramethyleneoxide) glycol (Example 14). See page 10, lines 30 - 35, page 11, lines 1 - 6, and page 13, lines 1 - 35 of the EP '086 publication .

Therefore, the EP '086 publication does not teach or suggest that the polyether ester elastic fiber comprising a polyether ester elastomer containing polybutylene terephthalate as a hard segment and polyoxyethylene glycol as a soft segment of the presently claimed invention gives a fabric having a good moisture-absorbing property and is reversibly, significantly expanded or contracted by the absorption or release of water to exhibit excellent comfortableness. Namely, a woven or knitted fabric comprising the elastic fibers of the presently claimed invention has a so-called "self-adjusting function" wherein, when the fabric absorbs sweat, the fibers are extended to open the stitches of the fabric to release moisture in the clothing, and when the fabric is dried, the fibers are contracted back to their original lengths, thereby closing the stitches of the fabric to prevent the release of heat from the clothing.

Also, in the EP '086 publication, the elastomer is not copolymerized with a metal organic. The anti-cohesive agent consists essentially of a first component, consisting essentially of at least one sulfonic acid metal salt of the formula (1), and a second component, consisting essentially of at least one compound of the formulae (2) to (6) is only mixed into the elastomer.

See claim 1 and page 4, line 39 through page 5, line 4 and page 6, lines 34 - 45 of the EP '086 publication. The elastic fiber of the presently claimed invention has a moisture-absorbing property and is reversibly, significantly expanded or contracted by the absorption or release of water, itself; this is in contrast to the elastic fiber of the EP '086 publication, which exhibits a high anti-cohesive property and hydrophilicity, because the anti-cohesive agent bleeds out and migrates from the inside to the surface of the EP '086 publication fiber. See page 6, lines 14 - 21 of Yamamura.

Thus, the EP '086 publication does not render claims 1 - 8 and 14 - 15 obvious.

#### **Response to the § 103 Rejection Based On Yamamura and Azuse**

Applicant submits that the cited references do not render claims 9 - 10 and 16 - 17 obvious.

Azuse discloses a finishing oil for mainly hydrophobic elastic fibers to enhance their antistatic property and prevent said fibers from tacking with one another during processing. See [0001] or [0006] of Azuse. However, the polyether ester elastic fiber of the presently claimed invention has a good moisture-absorbing property and does not require an antistatic property. Also, Azuse does not teach or suggest that the polyether ester elastic fiber comprising a polyether ester elastomer containing polybutylene terephthalate as a hard segment and polyoxyethylene glycol as a soft segment of the presently claimed invention provides a fabric having a good moisture-absorbing property and is reversibly, significantly expanded or contracted by the absorption or release of water to give excellent comfortableness.

Moreover, neither the EP '086 publication nor Azuse teach or suggest that the polyether ester elastic fiber comprising a polyether ester elastomer containing polybutylene terephthalate as a hard segment and polyoxyethylene glycol as a soft segment of the present invention gives a fabric having a good moisture-absorbing property and is reversibly, significantly expanded or contracted by the absorption or release of water to exhibit excellent comfortableness.

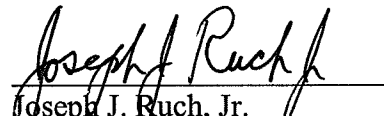
Therefore, even if combined, *arguendo*, the EP '086 publication and Azuse do not render the claims 9 - 10 and 16 - 17 obvious.

In view of the above, reconsideration and allowance of now pending claim 1 - 10 and 14 - 17 of this application are now believed to be in order, and such actions are hereby earnestly solicited.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the local Washington, D.C. telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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